

increase the transmission power. Thus, since the mobile station relating to the other user and the base station must transmit in the state where the interference power is large, the transmission quality is deteriorated.

In the case where the transmission power is abruptly decreased, the interference power to the other user is also abruptly decreased. In this case, if the decrease of the interference power to the other user is abrupt and larger than the constant value, it takes a time for the mobile station relating to the other user and the base station to sufficiently decrease the transmission power to a necessary minimum. In this case, since the mobile station relating to the other user and the base station continue the transmission with transmission power higher than transmission power for keeping minimum transmission quality, wasteful power is consumed.

DISCLOSURE OF THE INVENTION

The present invention has been made to solve the foregoing problems, and has an object to provide a CDMA mobile communication station, a CDMA mobile communication system, and a CDMA packet transmission method, in which in a case where wireless transmission of packet data relating to one call is made through a plurality of data channels while predetermined control information is shared, even if a transmission operation is permitted only when the packet data exists, an abrupt change

of transmission power can be suppressed.

In order to achieve the object, there is provided something which comprises multicode transmission means for transmitting packet data relating to one call in CDMA mobile communication by wireless through a plurality of data channels by sharing predetermined control information, transmission power control means for controlling transmission power when the packet data is transmitted, on a basis of an instruction to increase or decrease the transmission power from a communication partner station which receives the packet data transmitted by the multicode transmission means, and transmission start control means for inhibiting the start of transmission by the multicode transmission means until the packet data is generated and for controlling the multicode transmission means in a case where the packet data is generated, so that transmission of the packet data is postponed for a predetermined time in a unit of the data channel and is started.

Besides, there is provided something which comprises multicode transmission means for transmitting packet data relating to one call in CDMA mobile communication by wireless through a plurality of data channels by sharing predetermined control information, transmission power control means for controlling transmission power when the packet data is transmitted, on a basis of an instruction to increase or decrease the transmission power from a communication partner

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station which receives the packet data transmitted by the multicode transmission means, and transmission stop control means for continuing transmission by the multicode transmission means until the packet data transmitted by the multicode transmission means disappears and for controlling the multicode transmission means in a case where the packet data disappears, so that data transmission through the data channels is stopped at timings shifted from each other by a predetermined time in a unit of the data channel.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is conceptual view showing the whole structure of a CDMA mobile communication system according to embodiment 1 of the present invention.

Figs. 2A to 2F are views for explaining multicode transmission of down packet data according to the embodiment 1 of the present invention.

Figs. 3A to 3F are views for explaining multicode transmission of up packet data according to the embodiment 1 of the present invention.

Figs. 4A to 4E are views for explaining multicode transmission of packet data according to embodiment 2 of the present invention.

Figs. 5A to 5E are views for explaining multicode transmission of packet data according to the embodiment 2 of